

editorial

Dear reader,
SICMA S.P.A. is proud to announce the birth of "SICMA INFORMA".

The newspaper was born with the purpose to highlight the latest technological developments in the activity of the company; and to provide a contact with the mills, that we feel may sometimes better understand the activity of our company with a calm and pondered reading at their convenience, rather than with a quick explanation during the short meetings that the today's frantic life impose. It is in facts true that, although being SICMA a well known manufacturer of handling systems for the paper mills, with its activity dating since 1962, even its own customers may not know the latest developments of technology available in the company. So, the usual and distinctive strength of SICMA conveyors married during the time with the technical development of most of the machinery for the process and the treatments of the products of the paper mills.

The quality of the design, and its full integration with the workshop manufacture (from steel to the "turnkey" system) have been the key for the success of the company on Italian and international market, and for the references in the paper industry worldwide. After more than 40 years activity, still SICMA proud themselves of the strong interest in all the aspects of the activity of handling in the paper mills, and are looking forward to the possibility to develop more activity in serving the logistic and rational use of the resources in the paper mills.



company

SICMA manufacturing program for paper mills, include:

- PULPER FEEDING SYSTEMS
- JUMBO ROLLS HANDLING
- ROLL HANDLING SYSTEMS
- PALLETS HANDLING SYSTEMS
- WRAPPING MACHINES FOR PAPER AND TISSUE ROLLS
- AUTOMATIC DEWIRING MACHINES FOR PULP BALES
- MACHINERY FOR WOOD AND CHIPS YARDS

This newsletter is, in our view, the most practical, simple and effective way to maintain a constant contact directly between our product and the possible end users.

But SICMA, as always, will be available to direct visit and discussions with the paper mills, and happy to explain with more details the information of this newsletter and to introduce their attitude for a complete and exhaustive definition of all the solutions for the paper mill.



Vista aerea dello stabilimento SICMA / View showing of the Sicma factory

S O M M A R I O : INSIDE THIS ISSUE:

Editoriale.....pag.1
Editorial.....pag.1

Presentazione.....pag.1
Presentation.....pag.1

Maggio 2002: inaugurazione nuovo impianto per le Cartiere Burgo s.p.a.....pag.2
May 2002: inauguration of a new plant at Cartiere Burgo s.p.a.....pag.2

Fasciatura dei rotoli con film estensibile: una nuova sfida che SICMA affronta con il solito impegno...pag.3
Stretch film wrapping: SICMA's new enthusiastic challenge.....pag.3

Nuove tecnologie per migliorare le linee alimentazione pulper...pag.4
New technologies to improve the pulper feeding systems efficiency.....pag.4

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May 2002: inauguration of a new plant at cartiere Burgo s.p.a.

handling and warehouse system for paper roll produced by mc8 - mc9

On May 20th, 2002, the new production line PM9 for LWC of Cartiere Burgo has been inaugurated at the presence of Mr. Antonio Marzano, Italian Minister for Productive Activities, Mr. Enzo Ghigo, President of the Region Piemonte, Mr. Giovanni Quaglia, President of the province, and many other authorities.

The investment of 500 ml €, has seen the establishment of the biggest European building yard in Verzuolo, where it was installed the PM9, the widest and most technologically advanced paper machine for LWC in Europe. In this site SICMA S.p.A. has installed for Cartiere Burgo the new line for handling and warehousing of the production of both the new PM9 and the already existing PM8.

Together with AWA Oy, the Finnish company specialized in stacker cranes and warehouse administration, and VOESTALPINE KREMS FINALTECHNIK, the Austrian company leader in steel racks, SICMA supplied the roll handling system that provides all the functions to feed in proper order the huge production to the warehouse, store and retrieve them, and organize to dispatch them to the final loading on the lorries and trains in the shipping area. The design data of the installation are:

- 125 rolls/hour for 24 hours/day and 7 days/week
- 260 rolls/hour for 12 hours/day and 5 days/week for a combined production of 160.000 ton per year from PM8 and 400.000 from PM9.

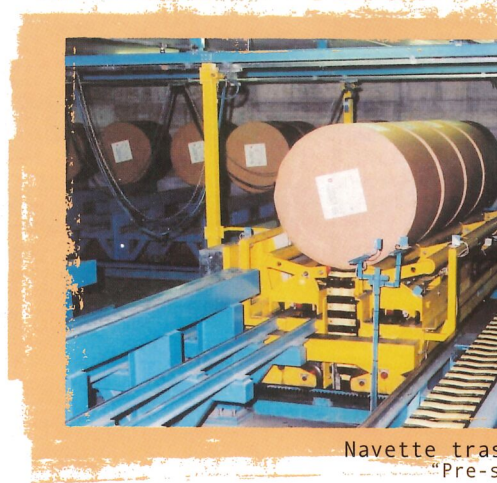
A characteristic information about the new system is without doubt the size of the warehouse, able to store up to 32.000 ton of paper rolls.

The system must be able to handle paper rolls with the following data:

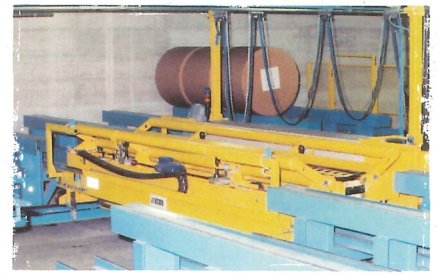
- Diameter (min/max): 600/1500 mm.
- Width (min/max): 388/3700 mm.
- Weight (max): 8000 Kg.



Area spedizione / Shipping area



Navette traslanti zona "Pre-sorting"
"Pre-sorting" travelling shuttles



In the roll handling system installed in Verzuolo mill, the most unique portion is called "Pre-sorting"; here, before the warehouse, the production of the paper machines is sorted in homogeneous kinds, according to the relevant parameters in order to store them in the warehouse in due mode. This area is automatically managed by two special shuttles those are controlled by a software that takes care about the identification, temporary location and retrieval of the incoming rolls. The pre-sorting area is composed by twenty-four parking stands, used for the composition of the different sets of rolls, and by the two shuttles. On each stand a set of rolls is composed, and after being completed, it is started to the warehouse. This activity allows to reduce drastically the number of the operations required for the administration of the warehouse. The roll handling system, at the same level as the PM9 floor, then transfers the sets of rolls via slats conveyors, turning tables, up to interface point with the stacker cranes, that store the rolls in their final location before the final retrieval for the shipping. Storage of the rolls occurs in horizontal position, in the high bay rack, in cells, or channels, with multiple depths; this architecture minimizes the floor occupation of the warehouse. The retrieval line, located at ground floor, allows the conveying of the reels designated to the shipping, organizing them in proper shipping bays. Rolls are up-ended in vertical position, and stored in homogeneous sequences ready for loading on the designated lorries.

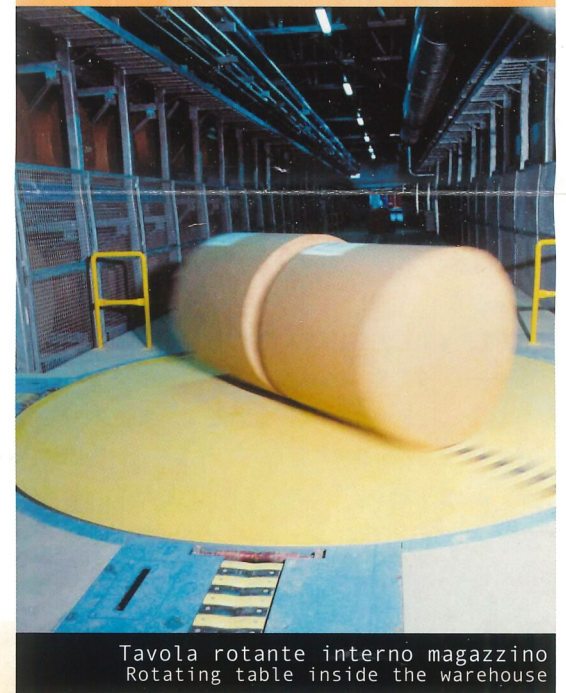


Tavola rotante interno magazzino
Rotating table inside the warehouse

The software interface between the data management of the warehouse and the DCS of the paper mill allows the automatic printing of the bills of lading and invoices. Also the electrical power and control system has been supplied "turn-key", including the direct connection to the high voltage line, the PLC, the motors control and the Supervision on personal computer. A full documentation of the system is available, and SICMA will be happy to deliver a full presentation of the installation for customers interested in similar applications.

automatic and semi-automatic roll wrapping machines

The roll wrapping machine that SICMA S.p.A. recently developed combine an effective protection and finishing of the paper rolls. Thanks to its experience in the handling of the materials of the paper mills, SICMA is able to offer the last technology in wrapping, to guarantee: consistent protection, proper treatment of the product before, during, and after the wrapping, safety for the personnel. The rolls may be wrapped either in radial mode, or axial (cocoon), or combined. The wrapping is performed by following layers of stretch film, partly overlapping each other, achieved by means of a relative motion between the paper roll and the film dispensing group. Market and product needs have urged SICMA to develop at present various kinds of machines:

- Automatic axial wrapper for tissue rolls
- Automatic axial wrapper for paper and board rolls
- Automatic radial wrapper for paper and board rolls
- Semi-automatic axial wrapper for paper and board rolls

axial wrapper for tissue rolls

Due to the softness and the increasing size of the tissue rolls, the concepts and components of these machines are different from a conventional wrapping process:

- The belt conveyor, usually in PVC, in combination with the rollers dragging bench, allows to turn the heavy rolls without damaging the outer surface.
- The film dispenser, installed onto a rotating arm, has been developed to provide constant pre-stretch of the plastic film, therefore guarantees the correct distribution of the film during the wrapping process, and avoids the damage of the rolls edge.
- Full automation, with automatic wrapping start, film cutting and welding, supervision and faults detection controls, combine the safety of the



Imballarotoli semi-automatica assiale / Semi-automatic axial wrapper



Imballarotoli automatica assiale / Automatic axial wrapper

stretch film wrapping: Sicma's new enthusiastic challenge

operations with the necessary economical use of the human resources of the paper mill.

semi-automatic wrapper for paper and board rolls

Although not being a key product in the manufacturing program of SICMA, because of the low possibility of integration in a complete and automatic roll handling system, nonetheless this machine offers the usual advantages of the SICMA product: reliability and sturdiness.

- The turning table, equipped with rollers bench, allows the rotation movement of the paper roll during wrapping.
- The rollers bench, equipped with a tipping mechanism, allows both rolls loading and ejection of the wrapped rolls.
- The film dispenser, being movable onto a column aside the turntable, provides the proper positioning and release of the plastic film.

automatic axial wrapper for paper and board rolls

Developed to wrap hard-paper rolls, it is composed by:

- A roller bench: it allows the rotation of the roll during the wrapping. This function is essential for the wrapping, and the control of the rotation is necessarily related to the film dispensing release speed.
- The film dispensing device is installed onto the rotating arm, and guarantees due support to the film roll and proper stretch action to perform the best package quality.
- Automatic operations for the start, finish, seal of the paper rolls combine high productions with safety and rationality. All the wrappers of our manufacturing are, or can be, integrated in automatic roll handling systems, and equipped with all the necessary auxiliaries, i.e. weighing devices, ink-jet marking, labelling...



Imballarotoli automatica assiale
Automatic axial wrapper

new technologies to improve the pulper feeding system efficiency

autostripper for unit & wire shark remover for single bales

Thanks to a multi-decennial experience in pulper feeding systems, SICMA have developed this equipment to complete their already large manufacturing program of pulp handling machinery.

The Autostripper for Unit and the Wire Shark Remover are the result of the design and investigation activity around the problems of the de-wiring job, that is necessary to start the bales to the pulping.

The inclusion of these machines in the traditional manually operated systems provides the advantages to speed up the production sequence, and combine it with the enhanced safety for the operators of the mill.

autostripper for unit

L'Autostripper for units is specifically designed by SICMA S.p.A. to cut the wires that tie the units of bales, remove the wires and make a coil easy to be handled, ejecting them to an outside box.

The installation on line allows to separate the two stacks of the unit for the wires removal automatic operation, and send them to the pulp process line. Key features of Autostripper:

- Environmentally clean
- No pulp loss after wires cut operations
- Automatic detection of the unit sizes
- Automatic winding of the steel wires
- Easy installation in existing pulp lines
- Reduced maintenance with the use of special steel for the tools
- High capacity
- High efficiency
- Simple and safe working operations.

wire shark remover for single bales

Wire Shark Remover for single bales, patented by SICMA S.p.A., is the solution for the mills that want an automatic process of the single pulp bales charging lines. The Remover is fully self contained, and uses the latest technology for drives and controls.

Wire Shark Remover consists of one conveyor with integrated bales centring, stop and lift devices, two wires cutting units, one wires gripping and pulling head, and a wires coiler.

Advantages and key features of Wire Shark Remover:

- Environmentally clean
- Small pulp loss after wires cut operations
- Automatic detection of the wires number and position
- Automatic winding of the steel wires
- Easy installation in existing pulp lines
- Reduced maintenance with the use of special steel for the tools
- High capacity
- High efficiency
- Safety for the operators.

In summary, the installation of the automatic de-wiring machines Autostripper for units and Wire Shark Remover for single bales, guarantees high production, reduction of the manning, elimination of the safety problems related to the manual operations.



Autostripper per Unit / Autostripper for Unit

at the end...

Well, the first number of "SICMA INFORMA" ends here.

It is our intention to reserve this space for any comment or information the readers may want to propose.

We will be pleased to include in this paragraph any news related to handling systems in the paper mills. We invite the readers to submit their comments by e-mail at the address (Marketing) or by fax at the following fax number +39 0174 481041.

We do hope that this reading has not been boring, and that some more information about SICMA activities and services are useful for your work.

At the end, we thank you for your time, and we give you our good-bye to the next number.



Wire Shark Remover



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